

ABSTRACT

A method and apparatus for a spread spectrum matched filter with Doppler correction suitable for using in a radio frequency receiver. The system includes a signal sampler operable to receive signal data and a Doppler shift system operable to provide a Doppler shift correction value. The system also includes a time domain signal processor in signal communication with the signal sampler, the Doppler shift system and the code signal input, the time domain signal processor operable to shift the signal data by the Doppler shift correction value and to determine a correlation between the shifted signal data and the code signal input. The system reduces a waveform representing Doppler correction values into a Boolean combination that may selectively represent the waveform and be implemented by the processing of a matched filter.